

Abstract

Apparatus and method for detecting presence of an analyte in ambient air. The apparatus comprising a valve for admitting ambient air, a line for conveying the air to a sensing element, a housing for isolating the environment around the sensing element, an inlet port for flowing the air through the sensing element in a turbulent flow in a direction substantially perpendicularly to the sensing element, an outlet port for conveying the air from the sensing element, and a pump in communication with the outlet port for providing suction for drawing the air to the sensing element.

The method includes the steps of drawing in ambient air that may contain an analyte, projecting the air at a sensing element in a turbulent flow by flowing the air at the sensing element, the sensing element having on its surface a chemoselective material that selectively interacts with the analyte, and detecting the interaction of the analyte with the sensing element.